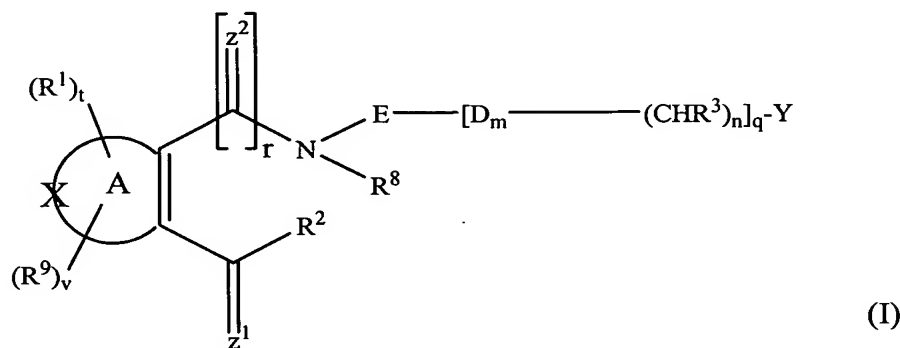


# IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A compound of the general formula (I) ~~and or a~~  
 salt[[s]] ~~and or a~~ physiologically functional derivative[[s]] thereof[[,]]:



wherein

A is a non-aromatic ring system containing 4 to 8 carbon atoms, wherein the ring system comprises at least one double bond and wherein one or more of the carbon atoms in the ring can be replaced by a group X, wherein X is CO ~~selected from the group consisting of S, O, N, NR<sup>4</sup>, SO, CO or SO<sub>2</sub>;~~

D is O, S, SO<sub>2</sub>, NR<sup>4</sup> or CH<sub>2</sub>;

Z<sup>1</sup> and Z<sup>2</sup> are, independently, ~~from each other~~ O, S, or NR<sup>5</sup>;

R<sup>1</sup> is independently -CO<sub>2</sub>R'', -SO<sub>3</sub>H, -CONR\*R'', -CR''O, -SO<sub>2</sub>-NR\*R'', -NO<sub>2</sub>, -SO<sub>2</sub>-R'', -SO-R\*, -CN, alkoxy, -OH, -SH, alkylthio, -NR''-CO<sub>2</sub>-R', -NR''-CO-R\*, -NR''-SO<sub>2</sub>-R', -O-CO-R\*, -O-CO<sub>2</sub>-R\*, -O-CO-NR\*R''[[,]], cycloalkyl, alkylamino, hydroxyalkylamino, aryl, or heteroaryl;

R<sup>9</sup> is independently H, halogen, haloalkyl, haloalkyloxy or alkyl;

R\* is independently H, alkyl, cycloalkyl, aminoalkyl, alkoxy, -OH, -SH, alkylthio, hydroxyalkyl, haloalkyl, haloalkyloxy, aryl or heteroaryl;

R' is independently H, -CO<sub>2</sub>R'', -CONHR'', CR''O, -SO<sub>2</sub>NR'', -NR''-CO-haloalkyl, -NO<sub>2</sub>, NR''-SO<sub>2</sub>-haloalkyl, -NR''-SO<sub>2</sub>-alkyl, -SO<sub>2</sub>-alkyl, -NR''-CO-alkyl, -CN,

alkyl, aminoalkyl, alkylamino, alkoxy, -OH, -SH, alkylthio, hydroxyalkyl,

hydroxyalkylamino, halogen, haloalkyl, haloalkyloxy, aryl, arylalkyl or heteroaryl;

$R''$  is independently hydrogen, haloalkyl, hydroxyalkyl, alkyl, cycloalkyl, aryl, heteroaryl or aminoalkyl;

$R^2$  is H,  $OR^6$ , or  $NHR^7$ ;

$R^3$  is H, alkyl, cycloalkyl, aryl, arylalkyl, alkoxy, O-aryl, O-cycloalkyl, halogen, aminoalkyl, alkylamino, hydroxylamino, hydroxylalkyl, haloalkyl, haloalkyloxy, heteroaryl, alkylthio, S-aryl, or S-cycloalkyl;

$R^4$  is H, alkyl, cycloalkyl, aryl, or heteroaryl;

$R^5$  is H, OH, alkoxy, O-aryl, alkyl, or aryl;

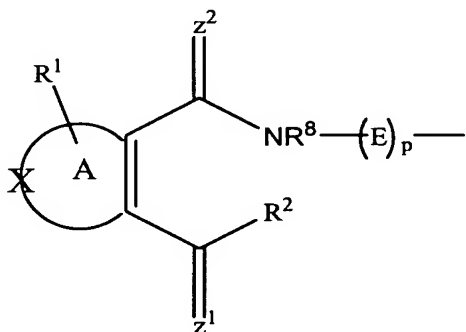
$R^6$  is H, alkyl, cycloalkyl, aryl, heteroaryl, arylalkyl, alkylaryl, alkoxyalkyl, acylmethyl, (acyloxy)alkyl, non-symmetrical (acyloxy)alkyldiester, or dialkylphosphate;

$R^7$  is H, alkyl, aryl, alkoxy, O-aryl, cycloalkyl, or O-cycloalkyl;

$R^8$  is hydrogen or alkyl;

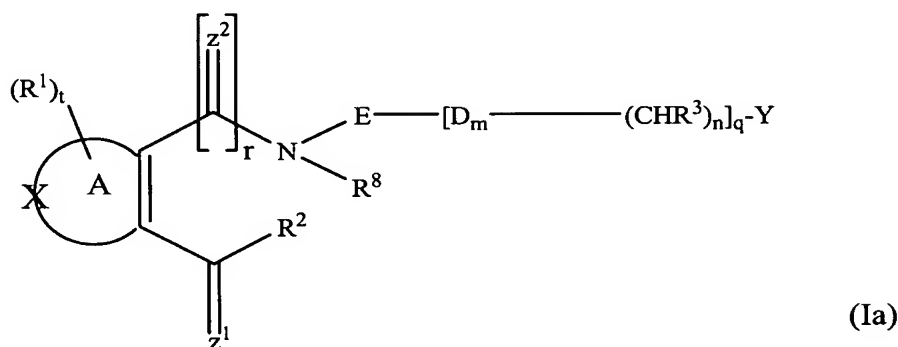
E is an alkyl or cycloalkyl group which is substituted by  $[D_m-(CHR_3)_n]_qY$  or a monocyclic or polycyclic substituted or unsubstituted ring system which may contain one or more groups X and which contains at least one aromatic ring;

Y is hydrogen, halogen, haloalkyl, haloalkyloxy, alkyl, cycloalkyl, a monocyclic or polycyclic substituted or unsubstituted ring system which may contain one or more groups X and which contains at least one aromatic ring or



m is 0 or 1;  
 n is 0 or 1;  
 p is 0 or 1;  
 r is 0 or 1;  
 q is 0 or 1;  
 t is 1 to 3; and  
 v is 0 to 3[[:;]].

Claim 2 (Currently Amended): A compound of the general formula (Ia) ~~and~~ or a salt[[s and]] or a physiologically function derivative[[s]] thereof,



wherein

A is a non-aromatic ring system containing 4, 5, 6, 7 or 8 carbon atoms, wherein the ring system comprises at least one double bond and wherein one or more of the carbon atoms in the ring can be replaced by a group X, wherein X is CO ~~selected from the group consisting of S, O, N, NR<sup>4</sup>, SO, CO or SO<sub>2</sub>;~~

D is O, S, SO<sub>2</sub>, NR<sup>4</sup>, or CH<sub>2</sub>;

Z<sup>1</sup> and Z<sup>2</sup> are, ~~independently, from each other~~ O, S, or NR<sup>5</sup>;

R<sup>1</sup> is independently H, halogen, haloalkyl, haloalkyloxy -CO<sub>2</sub>R'', -SO<sub>3</sub>H, -OH, -CONR\*R'', -CR''O, -SO<sub>2</sub>-NR\*R'', -NO<sub>2</sub>, -SO<sub>2</sub>-R'', -SO-R\*, -CN, alkoxy, alkylthio, aryl, --

$\text{NR}''\text{-CO}_2\text{-R}'$ ,  $\text{-NR}''\text{-CO-R}^*$ ,  $\text{-NR}''\text{-SO}_2\text{-R}'$ ,  $\text{-O-CO-R}^*$ ,  $\text{-O-CO}_2\text{-R}^*$ ,  $\text{-O-CO-NR}^*\text{R}''$ ;

cycloalkyl, alkylamino, hydroxyalkylamino, -SH, heteroaryl, or alkyl;

$\text{R}^*$  is independently H, alkyl, cycloalkyl, aminoalkyl, alkoxy, -OH, -SH, alkylthio, hydroxyalkyl, haloalkyl, haloalkyloxy, aryl or heteroaryl;

$\text{R}'$  is independently H,  $\text{-CO}_2\text{R}''$ ,  $\text{-CONHR}''$ ,  $\text{CR}''\text{O}$ ,  $\text{-SO}_2\text{NR}''$ ,  $\text{-NR}''\text{-CO-haloalkyl}$ ,  $\text{-NO}_2$ ,  $\text{NR}''\text{-SO}_2\text{-haloalkyl}$ ,  $\text{-NR}''\text{-SO}_2\text{-alkyl}$ ,  $\text{-SO}_2\text{-alkyl}$ ,  $\text{-NR}''\text{-CO-alkyl}$ ,  $\text{-CN}$ , alkyl, aminoalkyl, alkylamino, alkoxy, -OH, -SH, alkylthio, hydroxyalkyl, hydroxyalkylamino, halogen, haloalkyl, haloalkyloxy, aryl, arylalkyl or heteroaryl;

$\text{R}''$  is independently hydrogen, haloalkyl, hydroxyalkyl, alkyl, cycloalkyl, aryl, heteroaryl or aminoalkyl;

$\text{R}^2$  is NHOH or  $\text{R}^2$  together with the nitrogen atom which is attached to  $\text{R}^8$  form a 5 or 6 membered heterocyclic ring with the proviso that  $\text{R}^2$  is  $\text{-[CH}_2\text{]}$ , and  $\text{R}^8$  is absent;

$\text{R}^3$  is H, alkyl, cycloalkyl, aryl, alkoxy, O-aryl; O-cycloalkyl, halogen; aminoalkyl, alkylamino, hydroxylamino, hydroxylalkyl, haloalkyloxy, heteroaryl, alkylthio, S-aryl; S-cycloalkyl, arylalkyl, or haloalkyl;

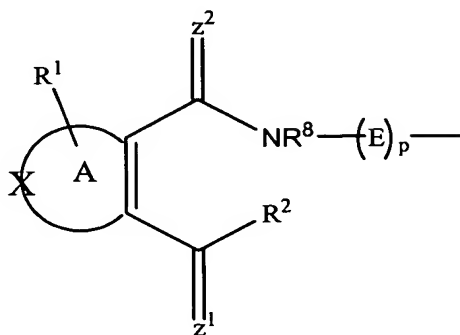
$\text{R}^4$  is H, alkyl, cycloalkyl, aryl or heteroaryl;

$\text{R}^5$  is H, OH, alkoxy, O-aryl, alkyl or aryl;

$\text{R}^8$  is hydrogen, or alkyl;

E is an alkyl or cycloalkyl group which is substituted by  $[\text{D}_m\text{---}(\text{CHR}_3)_n]_q$  or a monocyclic or polycyclic substituted or unsubstituted ring system which may contain one or more groups X and which contains at least one aromatic ring;

Y is hydrogen, halogen, haloalkyl, haloalkyloxy, alkyl, cycloalkyl, a monocyclic or polycyclic substituted or unsubstituted ring system which may contain one or more groups X and which contains at least one aromatic ring or



m is 0 or 1;

n is 0 or 1;

p is 0 or 1;

r is 0 or 1;

q is 0 or 1;

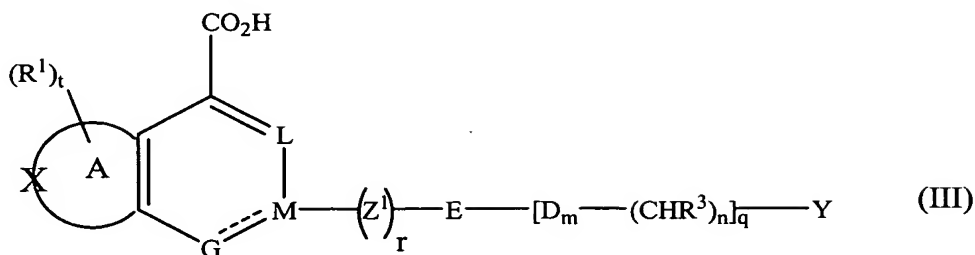
s is 0 to 2; and

t is 0 to 3;

with the proviso that the following compounds are excluded:

compounds wherein ring A is an unsubstituted carbocycle containing six carbon atoms and one double bond between the CZ¹ and CZ²-substituents, Z¹=Z²=O, and s is 0; 1,3,5-Tribenzyl-2,4,6-trioxopyrrolo[3,4-d]imidazole, 1,3-Dibenzyl-5-(4-methoxy-benzyl)-2,4,6-trioxopyrrolo[3,4-d]imidazole, 1,3-Bis-(4-methoxybenzyl)-5-benzyl-2,4,6-trioxopyrrolo[3,4-d]imidazole, and 1,3-Tris-(4-methoxybenzyl)-2,4,6-trioxo-pyrrolo[3,4-d]imidazole.

Claim 3 (Withdrawn): A compound of the general formula (III) ~~and~~ or a salt[[s and]] or physiologically functional derivative[[s]] thereof,



wherein

the dotted line means a single or a double bond;

A is a non-aromatic ring system containing 4, 5, 6, 7 or 8 carbon atoms, wherein the ring system comprises at least one double bond and wherein one or more of the carbon atoms in the ring can be replaced by a group X, wherein X is selected from the group consisting of S, O, N, NR<sup>4</sup>, SO, CO or SO<sub>2</sub>;

D is O, S, SO<sub>2</sub>, NR<sup>4</sup>, or CH<sub>2</sub>;

G is O, S, SO<sub>2</sub>, CO, N, NR<sup>4</sup>, CR<sup>1</sup> or CHR<sup>1</sup>;

L is N or CR<sup>1</sup>;

M is N or CR<sup>5</sup>;

Z<sup>1</sup> is O, S, or NR<sup>5</sup>; NR<sup>4</sup>CONR<sup>4</sup>, CONR<sup>4</sup>, or CO;

R<sup>1</sup> is independently H, halogen, haloalkyl, haloalkyloxy -CO<sub>2</sub>R'', -SO<sub>3</sub>H, -OH, -CONR\*R'', -CR''O, -SO<sub>2</sub>NR\*R'', NO<sub>2</sub>, -SO<sub>2</sub>-R'', -SO-R\*, -CN, alkoxy, alkylthio, aryl, NR''-CO<sub>2</sub>-R', -NR''-CO-R\*, -NR''-SO<sub>2</sub>-R', -O-CO-R\*, -O-CO<sub>2</sub>-R\*, -O-CO NR\*R'', cycloalkyl, alkylamino, hydroxyalkylamino, -SH, heteroaryl, or alkyl;

R\* is independently H, alkyl, cycloalkyl, aminoalkyl, alkoxy, -OH, -SH, alkylthio, hydroxyalkyl, haloalkyl, haloalkyloxy, aryl or heteroaryl;

R' is independently H, -CO<sub>2</sub>R'', -CONHR'', CR''O, -SO<sub>2</sub>NR'', -NR''-CO-haloalkyl, -NO<sub>2</sub>, NR''-SO<sub>2</sub>-haloalkyl, -NR''-SO<sub>2</sub>-alkyl, -SO<sub>2</sub>-alkyl, -NR''-CO-alkyl, -CN, alkyl, aminoalkyl, alkylamino, alkoxy, -OH, -SH, alkylthio, hydroxyalkyl, hydroxyalkylamino, halogen, haloalkyl, haloalkyloxy, aryl, arylalkyl or heteroaryl;

$R''$  is independently hydrogen, haloalkyl, hydroxyalkyl, alkyl, cycloalkyl, aryl, heteroaryl or aminoalkyl;

$R^3$  is H, alkyl, cycloalkyl, aryl, alkoxy, O-aryl; O-cycloalkyl, halogen, aminoalkyl, alkylamino, hydroxylamino, hydroxylalkyl, haloalkyloxy, heteroaryl, alkylthio, S-aryl; S-cycloalkyl, arylalkyl, or haloalkyl;

$R^4$  is H, alkyl, cycloalkyl, aryl or heteroaryl;

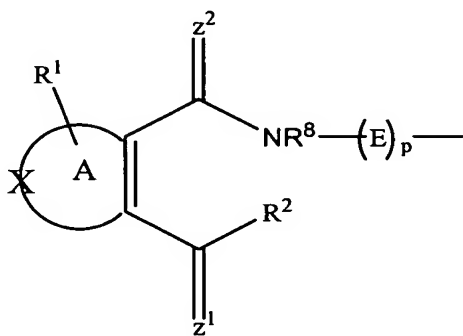
$R^5$  is H, OR, alkoxy, O-aryl, alkyl or aryl;

$R^7$  is H, OH, alkyl, aryl, alkoxy, O-aryl, cycloalkyl, or O-cycloalkyl;

$R^8$  is hydrogen, or alkyl;

E is an alkyl or cycloalkyl group or a monocyclic or polycyclic substituted or unsubstituted ring system which may contain one or more groups X and which contains at least one aromatic ring;

Y is hydrogen, halogen, haloalkyl, haloalkyloxy, alkyl, cycloalkyl, a monocyclic or polycyclic substituted or unsubstituted ring system which may contain one or more groups X and which contains at least one aromatic ring or



m is 0 or 1;

n is 0 or 1;

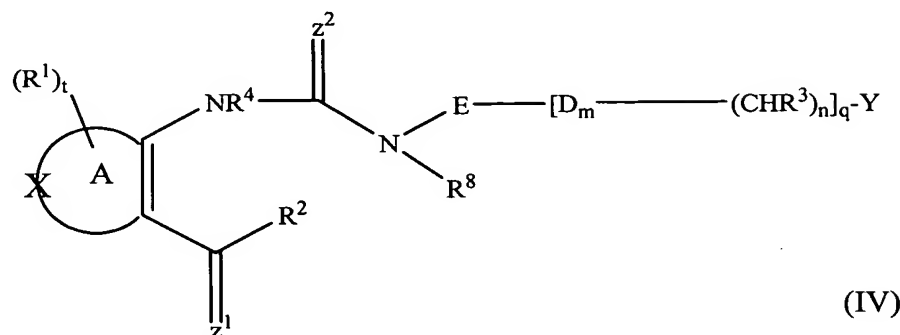
p is 0 or 1;

r is 0 or 1;

q is 0 or 1; and

t is 0 to 3;

Claim 4 (Withdrawn): A compound of the general formula (IV) and salts and physiologically functional derivatives thereof,



wherein

A is a non-aromatic ring system containing 4, 5, 6, 7 or 8 carbon atoms, wherein the ring system comprises at least one double bond and wherein one or more of the carbon atoms in the ring can be replaced by a group X, wherein X is selected from the group consisting of S, O, N, NR<sup>4</sup>, SO, CO [[or]] and SO<sub>2</sub>;

D is O, S, SO<sub>2</sub>, NR<sup>4</sup>, or CH<sub>2</sub>;

Z<sup>1</sup> and Z<sup>2</sup> are, independently, from each other O, S, or NR<sup>5</sup>;

R<sup>1</sup> is independently H, halogen, haloalkyl, haloalkyloxy -CO<sub>2</sub>R'', -SO<sub>3</sub>H, -OH, -CONR\*R'', -CR''O, -SO<sub>2</sub>-NR\*R'', -NO<sub>2</sub>, -SO<sub>2</sub>-R'', -SO-R\*, -CN, alkoxy, alkylthio, aryl, -NR''-CO<sub>2</sub>-R', -NR''-CO-R\*, -NR''-SO<sub>2</sub>-R', -O-CO-R\*, -O-CO<sub>2</sub>-R\*, -O-CO NR\*R''; cycloalkyl, alkylamino, hydroxyalkylamino, heteroaryl, -SH, or alkyl;

R\* is independently H, alkyl, cycloalkyl, aminoalkyl, alkoxy, -OH, -SH, alkylthio, hydroxyalkyl, haloalkyl, haloalkyloxy, aryl or heteroaryl;

R' is independently H, -CO<sub>2</sub>R'', -CONHR'', CR''O, -SO<sub>2</sub>NR'', -NR''-CO-haloalkyl, -NO<sub>2</sub>, NR''-SO<sub>2</sub>-haloalkyl, -NR''-SO<sub>2</sub>-alkyl, -SO<sub>2</sub>-alkyl, -NR''-CO-alkyl, -CN,



alkyl, aminoalkyl, alkylamino, alkoxy, -OH, -SH, alkylthio, hydroxyalkyl,

hydroxyalkylamino, halogen, haloalkyl, haloalkyloxy, aryl, arylalkyl or heteroaryl;

$R''$  is independently hydrogen, haloalkyl, hydroxyalkyl, alkyl, cycloalkyl, aryl, heteroaryl or aminoalkyl;

$R^2$  is H or  $OR^6$ ,  $NHR^7$ ,  $NR^7OR^7$  or  $R^2$  together with the nitrogen atom which is attached to  $R^8$  form a 6 membered heterocyclic ring with the proviso that  $R^2$  is  $-[CH_2]_8$  and  $R^8$  is absent;

$R^3$  is H, alkyl, cycloalkyl, aryl, alkoxy, O-aryl; O-cycloalkyl, halogen, aminoalkyl, alkylamino, hydroxylamino, hydroxylalkyl, haloalkyloxy, heteroaryl, alkylthio, S-aryl; S-cycloalkyl, arylalkyl, or haloalkyl;

$R^4$  is H, alkyl, cycloalkyl, aryl or heteroaryl;

$R^5$  is H, OH, alkoxy, O-aryl, alkyl or aryl;

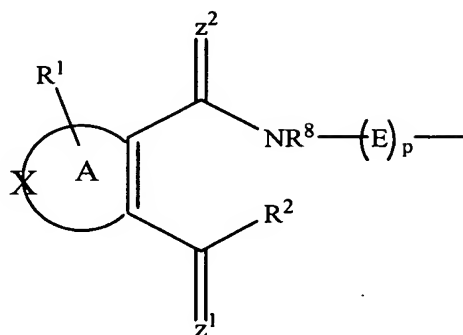
$R^6$  is H, alkyl, cycloalkyl, aryl, arylalkyl, heteroaryl, alkylaryl, alkoxyalkyl, acylmethyl, (acyloxy)alkyl, non-symmetrical (acyloxy)alkyldiester, or dialkylphosphate;

$R^7$  is H, OH, alkyl, aryl, alkoxy, O-aryl, cycloalkyl, or O-cycloalkyl;

$R^8$  is hydrogen, or alkyl;

E is an alkyl or cycloalkyl group which is substituted by  $[D_m-(CHR_3)_n]_qY$  or a monocyclic or polycyclic substituted or unsubstituted ring system which may contain one or more groups X and which contains at least one aromatic ring;

Y is hydrogen, halogen, haloalkyl, haloalkyloxy, alkyl, cycloalkyl, a monocyclic or polycyclic substituted or unsubstituted ring system which may contain one or more groups X and which contains at least one aromatic ring or



m is 0 or 1;

n is 0 or 1;

p is 0 or 1;

q is 0 or 1;

s is 0 to 2; and

t is 0 to 3;

with the proviso that the following compounds are excluded: 5,5-Dimethyl-4-phenyl-2-(3-phenyl-ureido)-4,5-dihydro-furan-3-carboxylic acid methyl ester, 2[3-(4-Chlorophenyl-ureido)]-5,5-dimethyl-4-phenyl-4,5-dihydro-furan-3-carboxylic acid methyl ester, 2[3-(4-Methoxyphenyl-ureido)]-5,5-dimethyl-4-phenyl-4,5-dihydro-furan-3-carboxylic acid methyl ester, 2[3-(4-Methylphenyl-ureido)]-5,5-dimethyl-4-phenyl-4,5-dihydro-furan-3-carboxylic acid methyl ester, 2[3-(4-Nitrophenyl-ureido)]-5,5-dimethyl-4-phenyl-4,5-dihydro-furan-3-carboxylic acid methyl ester, 4-(4-Chlorophenyl)-5,5-dimethyl-2-(3-phenyl-ureido)-4,5-dihydro-furan-3-carboxylic acid methyl ester, 4-(4-Chlorophenyl)-2[3-(4-chlorophenyl-ureido)]-5,5-dimethyl-4,5-dihydro-furan-3-carboxylic acid methyl ester, 4-(4-Chlorophenyl)-2[3-(4-methoxyphenyl-ureido)]-5,5-dimethyl-4,5-dihydro-furan-3-carboxylic acid methyl ester, 4-(4-Chlorophenyl)-2[3-(4-methylphenyl-ureido)]-5,5-dimethyl-4,5-dihydro-furan-3-carboxylic acid methyl ester, or 4-(4-Chlorophenyl)-2[3-(4-nitrophenyl-ureido)]-5,5-dimethyl-4,5-dihydro-furan-3-carboxylic acid methyl ester.

Claim 5 (Currently Amended): A pharmaceutical composition comprising:  
[[a]] ~~the compound as defined in of Claim 1 in free form or in the form of a~~  
~~pharmaceutically acceptable salt or physiologically functional derivative;~~ and  
a pharmaceutically acceptable diluent or carrier.

Claim 6 (Currently Amended): ~~A compound according to claim 1 for the use as a~~  
~~medicament~~ A pharmaceutical composition comprising:  
the compound of Claim 2, and  
a pharmaceutically acceptable diluent or carrier.

Claims 7-18 (Cancelled)

Claim 19 (New): A method for treating a disease associated with the expression of  
DHODH comprising administering an amount of the compound of Claim 1 effective to  
inhibit the activity of DHODH to a subject in need thereof.

Claim 20 (New): A method for treating a disease associated with the expression of  
DHODH comprising administering an amount of the compound of Claim 2 effective to  
inhibit the activity of DHODH to a subject in need thereof.

Claim 21 (New): The method of Claim 19, wherein the disease is selected from the  
group consisting of rheumatism, an acute immunological disorder, an autoimmune disease, a  
disease caused by malignant cell proliferation, an inflammatory disease, a disease that is  
caused by a protozoal infestation, a disease that is caused by a viral infection, *Pneumocystis*  
*carinii*, fibrosis, uveitis, rhinitis, asthma and athropathy.

Claim 22 (New): The method of Claim 19, comprising administering a compound of the general formula (I) or a salt thereof.

Claim 23 (New): The compound of Claim 1, which is compound of the general formula (I) in free form.

Claim 24 (New): The compound of Claim 1, which is a salt of a compound of general formula (I).

Claim 25 (New): The compound of Claim 1, which is a physiologically functional derivative of a compound of general formula (I).

Claim 26 (New): The compound of Claim 1, wherein ring A contains five carbon atoms.

Claim 27 (New): The compound of Claim 1, wherein ring A contains a single double bond between the carbon atoms carrying substituents Cz<sup>1</sup> and Cz<sup>2</sup>.

Claim 28 (New): The compound of Claim 1, wherein ring A contains a single X group which is CO.

Claim 29 (New): The compound of Claim 1, wherein none of the carbon atoms is replaced by X.

Claim 30 (New): The compound of Claim 1, wherein  $R^1$  is OH,  $OCH_3$ , SH,  $CO_2H$ ,  $SO_3H$  or tetrazolè.

Claim 31 (New): The compound of Claim 1, wherein  $R^9$  is H.

Claim 32 (New): The compound of Claim 1, wherein  $R^2$  is OH or  $OR^6$ .

Claim 33 (New): The compound of Claim 1, wherein  $R^8$  is H or methyl.

Claim 34 (New): The compound of Claim 1, wherein Y is optionally substituted phenyl.

Claim 35 (New): The compound of Claim 1, wherein D is S or O and  $m = 1$ .

Claim 36 (New): The compound of Claim 1, wherein  $z^1$  and  $z^2$  are both O.